# JUSTIFICATION

OF

MR MURDOCH M'KENZIE'S

*NAUTICAL SURVEY*

OF THE

ORKNEY ISLANDS AND HEBRIDES,

IN ANSWER TO

*THE ACCUSATIONS OF*

DOCTOR ANDERSON.

EDINBURGH:

PRINTED FOR WILLIAM CREECH.

M,DCC,LXXXV.

# JUSTIFICATION

OF

## Mr MURDOCH M'KENZIE's

# *NAUTICAL SURVEY.*

AS the nautical knowledge of the Orkney iſlands, and the weſtern coaſts of Scotland, was of great importance to the navigation of Britain, Mr Murdoch M'Kenzie, a man of ſcience, conceived the plan of making a ſurvey, for the direction of mariners unacquainted with thoſe ſeas. This he executed, with regard to the Orkneys, at his own expence. The merit of the performance was conſpicuous. The ſucceſs of the undertaking attracted the attention of the public. Mr M'Kenzie was afterwards employed by government to extend the ſurvey; and he in a manner ſpent his lifetime in that ſervice. The national benefit derived from his labours can only be known from the eſtimation in

which

which his charts are held by mariners; but, to a man of knowledge, the ſimple inſpection of the charts is ſufficient to convince him with regard to the pains and labour employed in that undertaking.

Dr Anderſon, a man who had no pretenſions to the knowledge of nautical ſurveying, or to the uſe of charts, made a public attack upon Mr M'Kenzie's works. He repreſented the charts as extremely erroneous, and dangerous to mariners; and he inſinuated, that the ſurvey had been an impoſition on the public. The printer of the Caledonian Mercury received his friend Dr Anderſon's accuſation into his paper. A public correſpondence was then commenced through that channel, and papers were alternately received from both ſides.

But the printer having now, for reaſons beſt known to himſelf, refuſed to receive an anſwer to Dr Anderſon's laſt letter, which was intended to contain a number of certificates from many gentlemen of Liverpool, Leith, &c. who will be allowed to poſſeſs the greateſt profeſſional knowledge. The friends of Mr M'Kenzie, and of truth, therefore, think it neceſſary to publiſh the whole of the correſpondence, which, when brought under review, will expoſe the conduct of Dr Anderſon, and juſtify the character of Mr M'Kenzie, whoſe behaviour, in relation to the Public, will ever be ready to meet a fair inquiry.

*First Attack against Mr M'Kenzie's Charts.*

*Caledonian Mercury, Nov.* 3. 1784.

WE hear that Dr Anderson, since his return from the Hebrides, complains much of the inconveniencies that navigators in those seas are subjected to, from the want of accurate maps and charts of those coasts. He carried with him the surveys of the western coasts of Scotland, &c. that were published some years ago by Mr Murdoch M'Kenzie, which he compared carefully with the places as he went along; but he soon found that no person can rely upon these with safety, as they are in many cases extremely erroneous, both with respect to bearings and to distances; and all the harbours he has been in are so imperfectly laid down, both as to form and dimensions, that he is convinced not one of them has been delineated from actual surveys, but imagines they must have been sketched by the eye only, and *that* even in a hasty and superficial manner. Dangerous sunk rocks, that are well known to the natives of these coasts, in the entry to harbours, and in narrow sounds, are often entirely omitted, and others are laid down in places where they ought not to be; so that vessels which sail by these charts (as has sometimes actually happened) may be put upon the very rocks that they were endeavouring to avoid. If we are rightly informed, this survey by Mr M'Kenzie was done at the

public

public expence, and coſt no inconſiderable ſum of money.—If ſo, and if the charts be ſo faulty as is above repreſented, the public has much room to complain. We, as wellwiſhers to our country, cannot but regret that ſuch an abuſe, if it really be ſo, ſhould not have been ſooner diſcovered, as it will naturally make the members of adminiſtration more ſhy to advance money for public undertakings in Scotland than they otherwiſe might have been, if they had ſeen that the perſons intereſted in theſe public undertakings had been more watchful to prevent abuſes. On this head we may be further allowed to regret, that the map of Scotland, which was drawn by Colonel Roy, in the years 1747, 1748, and 1749, and which, we are told, is no leſs remarkable for its accuracy, than for the elegant manner in which the hills and valleys are delineated upon, it, ſhould not have been publiſhed. If certain political reaſons ſeemed to render the publication of it improper at the time it was made, theſe, it is preſumed, do not now exiſt. And as the King has, on all occaſions, ſhewed a moſt laudable deſire to promote the improvements of every part of his dominions, we cannot help thinking, that, if the gentlemen of Scotland were, in a reſpectful manner, to petition his Majeſty to permit that map to be publiſhed, he would readily comply with their prayer. If this were done, it would tend much to facilitate the improvement of Scotland, as it would not only give foreigners a more adequate idea of that country than they can poſſibly obtain from the faulty maps

which

which now exist, but would even suggest to the natives themselves an idea of the manner of opening communications between different places, which they have not at present in contemplation.

*Mr M'Kenzie's Answer.*

SIR, *Mercury, Nov.* 17. 1784.

MR M'KENZIE, by the infirmity of years and bodily ailments, unable to give application to what must require thought and attention of mind, finds himself ill qualified to enter the lists, or even perhaps to attempt an answer, to the author of the paragraph in your paper of the 3d of November. But, conscious of his own integrity, he begs leave to assure the public, that with accuracy, fidelity, and care, he executed the trust reposed in him, of carrying on a nautical survey, in consequence of instructions received from the Lords of Admiralty; in which he has pointed out the best tracts, and the propereſt anchorage, as far as necessary for the safety of shipping. And he submits the merit of his survey, the work of many years, upon the only proper test, the approbation of those *alone* who are most interested, and best qualified to judge, *seamen*, the masters of vessels of all kinds, who, after the continued use of the said surveys from ten to thirty years, have never once found fault, so far at least as has come to his knowledge.

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On the contrary, as a proof of their accuracy, there has arifen amongft feamen, with regard to the ufe of thefe charts, a proverbial expreffion, which, in the circumftances he is in at prefent, authorifes him to repeat, That he who has M'Kenzie's charts, when navigating thefe coafts, needs no pilot.

At the fame time, if any rock or fhoal has happened to efcape Mr M'Kenzie's moft laborious fearch and affiduous inquiry, (which is far from being impoffible) Mr M'Kenzie thinks he has a right, in juftice to the public who employed him, and for the general intereft of mankind, exclufive of any confideration for himfelf, to call upon Dr Anderfon, (who he believes to be the author of the paragraph), to condefcend upon thofe errors and neglects, which may be dangerous to feamen who truft in thofe charts, and which, it is pretended, that Dr Anderfon has difcovered, in order that thofe corrections, if found juft, may be inferted in the draughts, for the purpofe of any future publication.

*Dr Anderfon's Second Attack.*

*Mercury, Nov.* 27. 1784.

DR ANDERSON is forry that Mr M'Kenzie fhould have felt himfelf fo much hurt by the paragragh in this paper of the 3d inftant, as to think it neceffary to call upon him, in a public manner, for explanations, which, if entered into, can only add to the diftrefs of which he complains. To find fault is, in all cafes, difagreeable;

able; but it becomes doubly ſo to the feeling mind, when it has a chance of adding to the diſtreſs which natural infirmities uſually bring upon man in the decline of life. He, therefore, wiſhes to avoid entering farther into the queſtion with Mr M'Kenzie at preſent, unleſs Mr M. ſhall think of again calling upon him for that purpoſe.

The obligations Dr Anderſon is under to the public, however, forbid him not to obſerve, that, after having read the paragraph complained of, he muſt candidly own, that it gives a very faithful repreſentation of the language he has invariably held ſince his return from the Hebrides, whenever that ſubject was introduced into converſation. He would think himſelf to blame if he ſhould either miſrepreſent, palliate, or conceal ſuch facts as have fallen under his obſervation, more eſpecially when theſe are of great national moment. It was this conſideration, and this alone, which induced him, and muſt continue to induce him, to ſpeak on that ſubject as he has done. Unacquainted as he is with Mr M'Kenzie, and altogether a ſtranger to his character in every reſpect, he could not, in that particular, be influenced by any perſonal ill-will. Juſtice requires that a man, in the public diſcharge of his duty, ſhould frequently be obliged to give pain to his deareſt connections, though, while he wounds, his heart bleeds for every ſtripe he reluctantly impoſes: And Dr Anderſon aſſures Mr M'Kenzie, with the utmoſt ſincerity, that it would afford him infinitely more

pleaſure to be able to encreaſe his enjoyments, than to add to his chagrin.

Influenced by the ſame principle of benevolence, Dr Anderſon thinks it his duty to ſtate the following fact to Mr M'Kenzie, as, without an explanation, it ſeems to bear more hard upon his character than any thing that has occurred; and, as it is poſſible Mr M'Kenzie may have been abuſed himſelf with regard to it, he wiſhes to give him a public opportunity of vindicating himſelf from the public imputation it implies.

Many years ago Mr M'Kenzie publiſhed a ſet of charts under the title of *Orcades*; the laſt of which maps contains a chart of Lewis: In that map, the rock called *Skerinoe*, near the Schant Iſlands, is laid down about four miles out of its proper place. In a future ſurvey he made of the weſt coaſt of Scotland, and iſlands, that rock of Skerinoe is laid down nearly in its proper place: He, therefore, had then diſcovered his error, and very properly corrected it. But the circumſtance which reflects the higheſt blame in this caſe is, that the firſt ſet of maps continue to be ſold to this day, without the ſmalleſt mark of correction as to this particular. Dr Anderſon purchaſed both ſets of maps, above mentioned, from Mr Coke in Leith, upon the 15th or 16th of July laſt, and has them now in his poſſeſſion;—but, ſhould a ſhipmaſter have had only the firſt ſet, and have ſailed by it, the danger he would there have run of ſhipwreck is obvious. It has been ſaid, that pirated copies of theſe maps have been ſold;

perhaps

perhaps this copy may be one: It bears to be printed at London, for the author, by C. Say, Newgate-ſtreet. Dr Anderſon hopes a ſatisfactory explanation of this will be given; and that effectual meaſures will be taken to prevent this erroneous chart from being ſold for the future. He was informed, that, ſome years ago, a Liverpool veſſel, ſailing by that chart, actually ſtruck upon that rock, in a very fine day, and every thing was loſt but the men, who ſaved themſelves in the boat.

Deſirous of diſturbing Mr M'Kenzie as little as poſſible, Dr Anderſon wiſhes here to cloſe this public correſpondence. If any of Mr M'Kenzie's friends wiſh for private information as to particulars, and will take the trouble to call upon the Doctor at his own houſe, he will endeavour to ſatisfy them as to the propriety of his remarks. If he ſhall be again called on in a public manner, he will conſider himſelf as under no reſtraints from a principle of delicacy; and will hold himſelf juſtified if he writes with candour, and without reſerve.

*Mr M'Kenzie's Anſwer.*

SIR, *Mercury, Dec.* 11. 1784.

I BEG leave, through the channel of your paper, to recal the attention of the Public to Dr Anderſon's accuſation of Mr M'Kenzie's ſurveys, the Public being highly intereſted in judging how far thoſe accuſations,

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of a work of ſuch magnitude and importance, be either on the one hand true, or on the other falſe.

Dr Anderſon has repreſented thoſe charts as erroneous and dangerous; and has inſinuated, if not declared, that the public money had been miſ-ſpent, in being laid out for ſurveys that were nothing but a ſpecies of impoſition. In ſupport of this charge, the Doctor has condeſcended upon one particular, of which the Public is now to judge. But, to enable thoſe, who never had an opportunity of examining the ſubject, it will be neceſſary to give a ſhort account of the origin of thoſe ſurveys.

The ſurvey of the Orkneys was the firſt undertaken by Mr M'Kenzie. It was made at his own expence, and publiſhed at his own riſk. In this work there is alſo a chart of the Lewis, which he in part ſurveyed.

Theſe charts were found ſo accurate, ſo uſeful, and ſo well received by the Public, that Mr M'Kenzie was employed by goverment, to ſurvey the weſt coaſt of Britain, and the coaſts of Ireland. In this ſurvey, Mr M'Kenzie begins with the Lewis, the ſurvey of which had not been completed in his private labour; conſequently, of this there is publiſhed a more perfect chart.

Dr Anderſon, in acknowledging that the ſunk rock Skerinoe, near Schant Iſlands on the coaſt of Lewis, is properly laid down in the laſt chart, complains of its being miſplaced in the firſt; and he accuſes Mr M'Kenzie of having ſuffered the firſt of thoſe charts, in which he finds an error, 'to be ſold even to this day, without

'out the ſmalleſt mark of correction as to this particu-
'lar.'

Theſe are two diſtinct charges againſt Mr M'Kenzie; the one relates to the accuracy of the ſurveys; the other is perſonal to Mr M'Kenzie, by affecting his moral character. It is only with the firſt of theſe that the Public is here concerned; Mr M'Kenzie's moral character requires no advocate.

The charge againſt the accuracy of Mr M'Kenzie's firſt publication will be beſt anſwered by reading what Mr M'Kenzie has there ſaid in relation to the ſubject. In page 3d, there is a chapter entitled, 'Manner of ta-
'king the ſurvey of the Orkneys and Lewis, with the
'perfections and imperfections of the charts.'—Then, having deſcribed his manner of taking the ſurvey of the Orkneys, he thus proceeds:

'The Lewis was ſurveyed in the ſame manner; only
'moſt of the leſſer iſlands there were done by the eye,
'*the coaſt between Loch-ſhell and Loch-ſea Fort, by infor-*
'*mation;* and no ſoundings taken but within the bays.'
Now, it is to be obſerved, the rock Skerinoe and Schant Iſlands lie preciſely on the coaſt between Loch-ſhell and Loch-ſea Fort.—Therefore, the ſunk rock Skerinoe could not be ſurveyed in this chart; and Mr M'Kenzie has warned every man, who is to uſe his charts, of this; that ſo the mariner may avoid the danger of ſailing by the chart of a coaſt which had not been ſurveyed.

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It would appear that Dr Anderſon has a great deal more to bring out in ſupport of his general charge againſt Mr M'Kenzie's ſurveys, as being dangerous in miſguiding the navigation of thoſe ſeas; and he has promiſed, if again called upon in a public manner, to write with candour, and without reſerve. Now, as I hope to have ſatisfied the Public, that the only error ſpecified in Dr Anderſon's vague accuſation is perfectly groundleſs, and the chart complained of irreproachable on the part of Mr M'Kenzie, I think I have a right, both as a wellwiſher to the Public, and a friend of Mr M'Kenzie, to call upon Dr Anderſon to wave his principle of delicacy on this occaſion, and publiſh thoſe errors by which the lives and fortunes of many of his countrymen are every day expoſed to danger. The Doctor may reſt aſſured, that Mr M'Kenzie's feelings have not been diſturbed by what he has already publiſhed; nor is there any reaſon to believe that they ever will be affected by what further he can ſay; for, if it be a diſcovery of any value, (as a work of this kind cannot be warranted free of imperfection), Mr M'Kenzie will never regret the improvement of his charts; but, if it be only a trifling criticiſm, or any unjuſt accuſation, the Doctor will only expoſe himſelf to ridicule and contempt.

*Dr*

*Dr Anderſon's Third Attack.*

SIR, *Mercury, Dec.* 18. 1784.

AS Mr Mackenzie, not ſatisfied with the mild reply Dr Anderſon made to his former remarks, ſtill calls on him to produce examples of the erroneouſneſs of his charts, the Doctor, though with reluctance, will now ſpecify a *few* particular caſes,—though to go through the whole would far exceed the bounds that can be allotted to it in your paper.

Though Dr Anderſon did not go with a purpoſe to ſurvey theſe coaſts for the making of charts, and pretends to have made no diſcovery of any rocks that were not well known to the people who frequent thoſe ſeas, yet he is able to condeſcend upon many places that are ſo exceedingly erroneous, as to be diſcoverable by the eye of even a ſuperficial obſerver of thoſe countries. The following are a few :

By Mr Mackenzie's map, a right line drawn from the point of Ardinrider, forming the north-eaſt ſide of the Sound of Mull, to the Caſtle of Dunſtaffnage, would paſs clear of the ſouth-weſt point of the iſland of Liſmore, leaving that iſland to the north of it near one mile ;—whereas, in reality, a line drawn between theſe two points would cut the iſland of Liſmore between two and three miles to the north of that point.

Again : From the Bay of Ardmurkiniſh at the houſe of Lochnel to Loch Creran, as laid down by Mr Mac-

kenzie,

kenzie, is a diſtance of between *five* and *ſix* miles ;—whereas, in reality, it ſcarcely meaſures *one* mile.

The coaſt on the ſouth ſide of Loch Crinan, by Mr Mackenzie's chart, bears in a direction ſo as to fall within (to the eaſtward of) Duntroon Caſtle ;—whereas it points to the eaſt entry into Loch Craigniſh, between one and two miles weſtward of Duntroon.

In the harbour of Crinan alſo, the iſland Daviero in Mr Mackenzie's map is nothing like its real ſhape, and lies in a very different direction, the eaſtmoſt ſide of it pointing nearly N. W. in the chart ; whereas it points nearly N. E. towards the Caſtle of Duntroon. The ſmall rock in that harbour is equally erroneouſly laid down, as it really lies in a right line between the head land to the eaſt of the Iſland Daviero and the Caſtle of Duntroon, about one third over, inſtead of lying cloſe by the weſt point of that iſland, as in the map. The draught of the harbour in other places is equally erroneous.

In the harbour of Loch Boiſdale in South Uiſt, are two ſunk rocks near the entry, both of them erroneouſly laid down by Mr Mackenzie.—And in the ſurvey of the harbour itſelf, ſeveral iſlands of conſiderable extent, not under ſix or eight acres, are not ſo much as delineated at all.

In the harbour of Tarbet in Harris are many inaccuracies ; ſeveral iſlands quite out of their places, and of a different form from what they bear; and ſeveral ſunk

rocks

rocks alſo very much out of their true place. It is not poſſible here to ſpecify theſe exactly.

The diſtance between Eaſt and Weſt Loch Tarbet in Harris is about 600 yards;—whereas in chart XXXI, the diſtance between Eaſt and Weſt Tarbet is *one* mile, and between Loch Stockiniſh and Weſt Loch Tarbet is only *three* miles and an half; but in chart XXIX, Loch Stockiniſh, which is the neareſt water to the eaſt of Weſt Loch Tarbet, is *ſix* miles diſtant.—In both caſes the errors are great. And any perſon who has the plates can compare them with each other.

From the head of Lochindaal, in Sky, Loch Eſſort, by Mackenzie's charts, bears W. by S. nearly diſtant *five miles and an half*;—whereas it really bears from Lochindaal about N. N. W. diſtant about *one* mile. Here is a difference of *ſeven* points in the bearing, and an error of more than *four* times the diſtance. —From the ſame Lochindaal to Broadford is by Mackenzie a bearing of N. by W. ½ Weſterly, diſtant *eight* miles,—though it really bears about N. Weſterly, diſtant about *four* miles.

Dr Anderſon will not take up your time with farther ſpecifications of this ſort, nor with altercations about the character that either Mr Mackenzie or his maps bear; though he owns, that his ideas of moral rectitude are not the ſame with thoſe of the man who can ſo eaſily ſatisfy himſelf with the propriety of ſelling a chart, *knowing it to be erroneous*, for twenty years together, as Mr Mackenzie acknowledges he has done. Had

no material error been diſcovered by Mr Mackenzie, the ſlight apology that has been made might perhaps been admitted. But, in the preſent caſe, eſpecially after the melancholy accident mentioned in his laſt addreſs, Dr Anderſon thinks it requires ſuch a degree of caſuiſtry to ſatisfy the mind, as, with very little addreſs, may reconcile it to other things, that mankind in general are diſpoſed to look upon as highly culpable.

But, to put an end to all farther altercations on this ſubject, Dr Anderſon will here make one very plain propoſal, which will at once decide the matter in diſpute. As Mr Mackenzie ſeems to pride himſelf on the unequalled accuracy of his maps, he can ſurely have no exception to get that accuracy aſcertained by one ſingle trial. Dr Anderſon, therefore, hereby makes offer to accompany Mr Mackenzie, or any perſon he ſhall appoint, to make an actual ſurvey of the harbour of Loch Boiſdale in South Uiſt, on this condition, that, if Mr Mackenzie's chart of that harbour ſhall prove to be accurate, Dr Anderſon ſhall pay all the expence of the ſurvey, with a reaſonable allowance to Mr Mackenzie for his trouble; provided that Mr Mackenzie, on his ſide, agrees to pay the whole expence, together with a reaſonable gratification to Dr Anderſon for his trouble, if the printed map of that harbour ſhall be found to be erroneous.—With theſe candid remarks, and this fair propoſal, Dr Anderſon, on his part, here cloſes this controverſy, not intending to ſay any thing further on

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this ſubject till the ſurvey is made, -when he would propoſe that the accurate ſurvey ſhould be publiſhed.

*P. S.* Dr Anderſon condeſcends upon Loch Boiſdale above, not becauſe he thinks it leſs accurate than others, but becauſe he thinks it an uncommonly fine harbour, and therefore wiſhes the public to be poſſeſſed of an accurate plan of it. If Mr Mackenzie is not ſatisfied with the *one* trial above mentioned, Dr Anderſon will, if he chuſes it, name ſeveral other places, which he is ready to get ſurveyed on the ſame terms.

*Anſwer.*

SIR, *January* 24. 1785.

I FIND myſelf obliged again to undertake the juſtification of Mr Mackenzie's charts. I do it willingly, both out of friendſhip to the author, and for the pleaſure of defending, againſt calumny, a work which, I think, does honour to the nation. I am to begin with ſome remarks on Dr Anderſon's reply to my laſt, in order to give a view either of the capacity or the diſpoſition of the accuſer.

Dr Anderſon had accuſed Mr Mackenzie's charts of being ſo extremely erroneous, as to be dangerous to the mariner who uſed them. He was called upon to ſpecify his vague and general charge. He then condeſcended upon the rock Skerinoe, on the coaſt of the Lewis, on which, he ſaid, a veſſel had been loſt, in ſailing

ing by Mr Mackenzie's chart. He was anſwered, that Mr Mackenzie had not ſurveyed that part of the coaſt, till after he was employed by Government, when the rock Skerinoe was properly placed; and that, in his former chart, he had told, that this part of the coaſt on which Skerinoe lies, was laid down from information only. It was, therefore, affirmed, that Mr Mackenzie could not be blamed for accidents which happen in conſequence of inadvertency on the part of other people, as he had told preciſely what had been ſurveyed, and what had not. This anſwer ſeems to be clear and diſtinct; yet, in his next paper, Dr Anderſon ſays, that a ſlight apology had been made, and that Mr Mackenzie had acknowledged his having ſold a chart, knowing it to be erroneous.

Dr Anderſon talks of his ideas of moral rectitude: Let theſe be what they may, it is ſubmitted to the public, whether this conduct be fair and honeſt. I cannot help concluding, that Dr Anderſon muſt either ſee the plaineſt things in a falſe light, or that he does not chooſe to ſee the truth, when he thinks miſrepreſentation will better ſuit his purpoſe. Nothing is more evident than that Mr Mackenzie's firſt chart is a fair and honeſt chart, notwithſtanding a certain part of the coaſt there ſpecified had not been ſurveyed. Mr Mackenzie's work of the Orcades, to which this chart belongs, is now as juſt, as valuable and uſeful as it was when firſt publiſhed. Then what does Dr Anderſon mean, in ſuch an unjuſtifiable manner, to endeavour to throw

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odium and blame on Mr Mackenzie? Is it becauſe he had unjuſtly condemned his charts, that he muſt injuriouſly accuſe himſelf? and will he again tell you, that I have made an apology, when I have told him plainly he is in the wrong?

So much for the Doctor's reply. But before I quit this ſubject, I would aſk of Dr Anderſon, what made the ſhipmaſter from Liverpool truſt his life and fortune to Mr Mackenzie's ſurvey, in ſailing upon an unknown coaſt, by his chart, without a pilot? Was it not the high reputation which thoſe charts had acquired among mariners? And how could mariners acquire that confidence in thoſe charts, without experience in finding them accurate, conſequently uſeful? I cannot ſuppoſe Dr Anderſon ignorant of this truth, becauſe it was a neceſſary principle in his reaſoning, when he ſaid that this ſkipper was ſhipwrecked on Skerinoe, by truſting to the falſe chart. The chart, however, was not falſe, although the ſhipmaſter was heedleſs. The Doctor was miſtaken in thinking that the chart was falſe, and he was to blame in accuſing Mr Mackenzie's work without examining it. Had he read the deſcription, he would have found that the chart was accurate and true. It was accurate, ſo far as Mr Mackenzie's ſurvey was concerned; and it was true or honeſt, in telling what parts had been ſurveyed, and what were only taken from information. But ſo far as the negligent ſhipmaſter, who does not diſtinguiſh betwixt ſailing by information and by ſurvey, is to blame in riſking his ſhip

and

and cargo, Dr Anderſon, who pretends to knowledge, ought to ſee the value of Mr Mackenzie's charts, as being far more uſeful than a pilot to ſuch people as can uſe them.

I come now to anſwer Dr Anderſon's ſecond liſt of errors. It would take up too much of your paper, and not be worth the attention of the public, to examine every article by itſelf: I ſhall, therefore, endeavour to claſs them according to their different natures, in order to abridge the work. I do not propoſe purſuing the Doctor into the minutiae of his accuſation, when he cenſures the ſhape of iſlands in the chart, which are little bigger than a pin's head. It is impoſſible that I can know at preſent how far the Doctor in this is either right or wrong; but, as I hope to ſhow that Dr Anderſon is altogether wrong, either in his facts or in his inferences, when he alledges great errors, I think the ſmall ones may be allowed to take the advantage of a general amneſty.

There are to be diſtinguiſhed two ſpecies of errors in the articles of charge. One of theſe reſpects the direction of ſpecified places; the other has only a reference to their diſtances. Theſe may be conſidered ſeparately.

With regard to the *firſt*, I ſhall give the article of charge in the Doctor's own words. He ſays, ‘ By Mr ‘ Mackenzie's map, a right line drawn from the point ‘ of Ardinrider, forming the north-eaſt ſide of the ‘ ſound of Mull, to the caſtle of Dunſtaffnage, would ‘ paſs clear of the ſouth-weſt point of the iſland of Liſ-

‘ more,

'more, leaving that iſland to the north of it near one
'mile; whereas, in *reality*, a line drawn between theſe
'two points would cut the iſland of Liſmore, between
'two or three miles to the north of that point.'

Before anſwering this accuſation, I would aſk what it is here we are to underſtand by *reality*. Is not every one who reads this paragraph made to believe, that Dr Anderſon, or ſome other perſon in whom he could confide, had taken an obſervation from the one of thoſe diſtant places to the other? But if the iſland lies as the Doctor ſays it is in *reality*, it is impoſſible to ſee one of thoſe points from the other; becauſe the points here in queſtion lie low upon the two ſhores, diſtant eleven or twelve miles; and the iſland of Liſmore, which he pretends lies betwixt them, is of a conſiderable height. The Doctor, therefore, ſhould have told us how he came to ſee that line cutting off two or three miles of the iſland.

Now, though Dr Anderſon has not choſen to give the public his authority for this direct condemnation of the chart, I ſhall here lay before them all the authorities in relation to this ſubject, and let the public judge how far Dr Anderſon has dealt fairly or not by them on this occaſion.

In the firſt place, then, there is a map of Scotland by Mr Moll, 1714, in which the ſouth point of Liſmore is a little to the north of a line drawn from Ardenrider to Dunſtaffnage. In the ſecond place, Mr Mackenzie lays it down nearly in the ſame way. Laſtly,

ly, General Roy's map agrees with Mr Mackenzie's chart, as well as with the above map. On the other hand, Mr Dorret's map agrees with Dr Anderſon's; that is to ſay, the ſouth point of the iſland is two or three miles to the ſouth-weſt of the line now ſpecified. —If Dr Anderſon has no better authority than this map, the public, who is well appriſed of its inaccuracy, will not condemn me if I give a flat denial to this fact of Dr Anderſon's.

The next general article, which I have to anſwer, regards the meaſurement between different places.

Dr Anderſon has given many inſtances of theſe, and ſome of them are accompanied with alledged inaccuracy of the bearings. In all theſe caſes, the Doctor affirms, that it is *reality* which he oppoſes to the chart, in ſhowing it to be erroneous. How far this is true, or not, time will diſcover certainly. At preſent, we ſhall conſider whether the one or the other appears to be moſt probable. But, before anſwering directly to the charge, there is a previous queſtion, not with regard to what right the Doctor has to challenge; every one has a right to challenge an error, by which the lives and fortunes of others are endangered; but the queſtion here propoſed reſpects the capacity of the challenger, how far he has proper information with regard to the ſubject on which he founds his accuſation.

Dr Anderſon has not told what inſtruments he had employed, or what time he had ſpent, in making thoſe numerous obſervations. But, without giving ſatisfaction

tion with regard at leaſt to the probable means of information, no perſon has a right to offer a criticiſm on the work of a maſter who made it the buſineſs of his life.

As truth, however, fears no ſcrutiny, we ſhall at preſent wave this privilege of a defender.

The queſtion now before the public, concerning thoſe pretended errors, divides itſelf into two branches, each of which requires a ſeparate anſwer.

Firſt, It may be conſidered how far, ſuppoſing the errors proved, Mr Mackenzie's ſurvey, or the utility of the charts, could be thereby affected?

Secondly, How far Dr Anderſon has given a fair ſtate of the caſe, or has endeavoured to impoſe upon the public?

The errors now under conſideration being all concerning the diſtance of places over land, moſt of them inland, from the head of one loch to that of another, the nautical ſurvey, or uſe of the charts, is little or nothing concerned with them, ſo far as it is a ſurvey, ſtrictly ſpeaking, of the water, not of the land. For though, in making this ſurvey, parts of the land are frequently meaſured, in order to form baſes of obſervation to determine the coaſt, yet the diſtance between the head of one loch and the head of another, over land, can have little connection with thoſe meaſurements which Mr Mackenzie employs in making his ſurvey, as will appear from his book of Maritime Surveying, in which he teaches his ſtaſimetric method. The

nautical ſurvey, therefore, or the charts given for the navigation of thoſe ſeas and ſounds, may be ſufficiently accurate, uſeful, and ſafe, notwithſtanding all theſe errors were to be admitted.

In every ſpecies of ſurvey, there are neceſſarily errors; but a nautical ſurvey is the ſpecies in which there neceſſarily muſt be the greateſt errors. Nevertheleſs, ſurveys are both valuable and uſeful, and may be extremely meritorious, notwithſtanding of many errors in every part. The queſtion, therefore, is, What errors each ſpecies of ſurvey may admit of without loſing its utility, or becoming unſerviceable for the end of its intention? The purpoſe of Mr Mackenzie's ſurvey was to make a pilot chart, ſuch as ſhould conduct thoſe who were ſtrangers to the coaſts through all the different ſounds, and lead them into ſafe anchorage. The queſtion, with which the Public is now concerned, is not, What degree of accuracy or of error may be found in Mr Mackenzie's charts? This is merely a queſtion of curioſity; a queſtion to which the charts will never be aſhamed to ſubmit; but a queſtion which would be extremely unimportant in this place.

Dr Anderſon has no title to point out any error but thoſe by which the navigation is immediately affected; an error in the chart which muſt be dangerous; and an error by which a mariner may ſuffer. It muſt be evident to every perſon who will inſpect the charts, that not one of all theſe pretended errors is of this kind; and that Mr M'Kenzie's ſurvey might be a ſurvey faithfully

fully made, as well as the charts valuable and uſeful charts, notwithſtanding we ſhould allow all thoſe facts ſtated by Dr Anderſon to be in *reality* as he repreſents them. This, however, is the fartheſt in the world from being our intention. We therefore come to the ſecond branch of the queſtion :—And, with regard to this point, I would wiſh the public to diſtinguiſh the four different authorities which are now to be conſidered.

Firſt, Dorret's map of Scotland; ſecondly, General Roy's map; thirdly, Mr M'Kenzie's charts; and, 4thly, Dr Anderſon's bare aſſertion, without any probable means of knowledge. I have compared them all, and find that Mr Dorret and Dr Anderſon agree in every particular; and that General Roy and Mr M'Kenzie uniformly agree, with one exception only. Now, if Dr Anderſon has contented himſelf with taking Mr Dorret's authority for his accuſation, he has ſurely attempted to impoſe upon the public, in making them believe that it was from actual obſervation. If, on the other hand, Dr Anderſon has actually made thoſe obſervations, which coincide ſo exactly with Mr Dorret's map (who never made a ſurvey of thoſe coaſts and iſlands,) then Mr Mackenzie's charts and General Roy's map, both of which are from actual ſurvey, muſt be erroneous. It is ſubmitted which of theſe two propoſitions is moſt probable.

There is one thing which I would not have taken notice of, unleſs it were to ſhow the diſpoſition of the accuſer,

accuſer, as well as the nature of the accuſation. It is an alledged diſcrepancy between two of Mr Mackenzie's charts.

The Doctor ſays, 'the diſtance between Eaſt and 'Weſt Loch Tarbet in Harris is about 600 yards; 'whereas in chart XXXI. the diſtance between Eaſt 'and Weſt Loch Tarbets is one mile; and between 'Loch Stokeniſh and Weſt Loch Tarbet is only three 'miles and an half; but in chart XXIX. Loch Stoke-'niſh, which is the neareſt water to the Eaſt of Weſt 'Loch Tarbet, is ſix miles diſtant. In both caſes the 'errors are great; and any perſon who has the plates 'can compare them with each other.' I have compared thoſe plates, and do not find that they can be ſaid to differ above half a mile. But admitting there had ſlipped into the plates an error of two miles and a half, as Dr Anderſon alledges; yet, if one of the charts be right, the fault does not lie at the door of the ſurveyor.

There remains ſtill one thing to be anſwered.——It is a challenge of Dr Anderſon's to lay a bett with Mr Mackenzie, that the repreſentation of Loch Boiſdale in the chart, and ſome other of thoſe harbours, ſhall not be found accurate, compared with an actual ſurvey, which Dr Anderſon propoſes to have made.

Let us ſuppoſe, that, in the numerous and extenſive Lochs found in the Hebrides, and weſt coaſts of Scotland, there ſhould be many corners and iſlands in the chart not laid down with that accuracy and minute

precision,

precision, which labour and expence might have procured: In that case, could the surveyor, who had judiciously saved to the nation the laying out of that expence, not necessary to the navigation, be accused as having mis-spent the public money, or as having led mariners into danger, in giving charts only of what was useful in those seas? Had Mr Mackenzie, while employed by government in those surveys, consulted his own ease and safety, and not the valuable intention of his employers, he had certainly spent his time in making such plans of harbours as would have pleased Dr Anderson, and not in making that general survey of the coasts which the navigation of those seas required. The purpose of his nautical survey, was to conduct ships sailing upon those coasts into shelter and safe anchorage, without the help of pilots; and not for the purpose of speculators, who may wish to lay out the public money in erecting either cities or fortresses within those harbours. Therefore, the Doctor's challenge to Mr Mackenzie has no tendency to clear up the point in dispute; that is, whether or not Mr M'Kenzie had made a proper nautical survey, for the purpose of navigation.

The Dr seems to forget himself, when he talks of putting an end to all further altercation.—Does he consider as altercation, his being called upon publicly to make good his calumnious assertions? He accused Mr M'Kenzie's charts as being erroneous and dangerous, and called the survey no better than an imposition upon the public: He has not pointed out one error, which

a navigator could poſſibly obſerve, or by which a mariner might ſuffer ; and now he attempts to amuſe the public with a challenge, to judge the ſurvey by a meaſurement of Loch Boiſdale ; a natural harbour, full of iſlands, and of which harbour, it is evident, from the chart itſelf, the one-half lies beyond the reach of Mr Mackenzie's ſurvey.

The Doctor has not referred, for authority, to any of the profeſſion, to a perſon who ſhould know a nautical chart, or to thoſe who have had opportunity of trying Mr Mackenzie's ſurveys ; nor does he propoſe to refer the queſtion to profeſſional men.——He alone accuſes, and he alone muſt be the judge.

I ſhall conclude this with a challenge in my turn.—It is, for Dr Anderſon to ſeek all the world over, and name one ſurvey, equal, in any reſpect, to that which it has pleaſed him to condemn.—That is to ſay, a nautical ſurvey, which, in point of greatneſs in its operation, of accuracy and care in its execution, or of utility in anſwering the end of its intention, is equal to that which Mr Mackenzie has had the merit to accompliſh.

*Dr Anderſon's fourth Attack.*

SIR, *Mercury, Jan.* 31. 1785.

IF conſiderable errors with reſpect to the bearings and diſtances of places be of no importance in a nautical

cal chart, as your correſpondent in laſt Monday's paper contends; if the navigation of narrow ſeas be not rendered hazardous by having land laid down in the map ſeveral miles out of its true place, as he alſo maintains; if it be of no conſequence whether rocks that are in the chart *no bigger than a pin's head* be exactly laid down, or the reverſe, as he alſo aſſerts; and if, as he likewiſe affirms, the public money would be improperly ſquandered away, ſhould the man appointed to make a nautical ſurvey of the coaſt, have delineated with truth and accuracy the different harbours on that coaſt, Mr Mackenzie had certainly no room to be offended at Dr Anderſon for taking notice of the above mentioned peculiarities in his charts. Theſe are all the particulars he ever objected to in them. He has been called upon to condeſcend on examples of theſe peculiarities.—He has done ſo. The facts he has mentioned are not diſproved. If Mr Mackenzie doubts the truth of them, the places themſelves ſtill exiſt, and may be meaſured ſo as to aſcertain theſe facts with preciſion; and he is ready to have them thus aſcertained on the ſame terms he formerly ſpecified as to Loch Boiſdale. References to maps (none of which Dr Anderſon examined on this occaſion but Mr Mackenzie's alone) in a caſe of this nature, can only be meant to multiply words with a view to conceal the truth.

With regard to the diſcrepancy between the xxix. and xxxi. of Mr Mackenzie's charts, any perſon who has theſe charts will find, on comparing them, that

Loch

Loch Stoken is laid down in the one, at leaſt five miles out of the place it occupies in the other. But as theſe maps are in the hands of a few only, a copy of them is left with the Printer of this paper, that any perſon about Edinburgh who inclines, may have an opportunity of ſatisfying himſelf as to this particular.

Dr Anderſon is aſhamed at having been inadvertently drawn into an altercation, with a perſon who ſeems to have no other aim but to miſpreſent facts; one of theſe miſrepreſentations only he thinks it neceſſary to take notice of.—He has been accuſed of intending *maliciouſly* to hurt Mr Mackenzie's character with regard to the rock Skerinoe. The reader, however, may eaſily recollect, that, when he firſt mentioned that rock, it was not adduced as one of the errors he had taken notice of in the charts (as this writer has ſo often confidently aſſerted he had done); on the contrary, after having declined at that time to ſpecify any of thoſe errors, for reaſons then aſſigned, he mentioned the Skerinoe rock, merely with a view to give Mr Mackenzie an opportunity, in a public manner, to exculpate himſelf from an accuſation he had often heard brought againſt him, viz. that of ſelling a faulty chart knowing it to be ſo. At that time, he did imagine, that gentleman would have no difficulty on that head; for he had been told, that a ſurreptitious edition of theſe charts had been printed in Ireland, which, by having a London title page, might have been ſold as his, to the prejudice of the author, both as to pecuniary advantage,

tage, and otherwiſe.—He, therefore, certainly meant to do Mr Mackenzie a ſervice on that occaſion. It now appears he was miſtaken in that reſpect. The maps complained of, are acknowledged to be ſold by Mr Mackenzie himſelf till the preſent time; and an exculpation of his moral character, for ſtill continuing to ſell theſe defective maps, has been offered.—How far that apology proves ſatisfactory, the public will judge, from the following fair ſtate of the caſe.

It has been urged by his apologiſt, that, in the introduction to the firſt ſet of maps, he had mentioned that the ſouth-eaſt coaſt of Lewis had been laid down from *information only*. It ought, however, to have been added, that in the very next paragraph to the above, in the ſame introduction, it is ſaid—*Since the firſt publication of theſe draughts*, ONE *miſtake has been diſcovered in them*, &c.—This ſingle error relates to the Iſland of Copinſhaw.—From the above notification, is it not natural to infer, that no other error but the *one* there ſpecified had been diſcovered by Mr Mackenzie, between the publication of the maps, and the time that any particular copy of them had been ſold by the author? If ſo, would not any perſon who bought theſe maps, after the time that he knew Mr Mackenzie had actually ſurveyed that part of the coaſt of Lewis, have good reaſon to ſuppoſe, that he had diſcovered no error by that ſurvey, and might he not naturally conclude, that he had Mr Mackenzie's authority to rely on the accuracy of that part of the map, as well as thoſe

other parts that had been formerly furveyed by him ? An honeſt man might, at leaſt, have been thus innocently miſled; and in a caſe of ſo much importance, where a correction might have been made for a few ſhillings, merely by effacing the Skerinoe rock from the faulty chart, ſome men would have thought that no room ſhould have been left for a poſſibility of committing a miſtake.

[We are ſorry this controverſy has run out to ſuch a length; and are, therefore, perſuaded moſt of our readers will think us juſtified in putting a negative on any thing farher that may be offered on the ſubject from either party. Dr A. has brought the matter in diſpute to the teſt of occular demonſtration; and any perſon who chooſes may be ſatisfied, by calling at the printing-office.]

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*Anſwer to Dr Anderſon's laſt Letter.*

DOCTOR ANDERSON began with making a public accuſation of Mr M'Kenzie's ſurveys. Upon the modeſt requiſition of Mr M'Kenzie, Dr Anderſon added inſult to injury. Being

closely

closely followed by inquiry, he advanced facts without a just foundation; and now he endeavours to impose upon the public, by misrepresenting certain arguments which had been employed in justifying the survey, and detecting his false accusations. In his paper of the 31st of January, he sets out, by framing four abstract propositions, to each of which he has annexed certain pretended assertions of mine, assertions which I never made, but which, by wresting the meaning of my arguments, he has fabricated for me, in order to serve the purposes of his sophistry, by which he flatters himself that he will escape censure. For example,

I have not said, as is alledged by Dr Anderson, that the public money would have been squandered away, if the man appointed to make a nautical survey of the coast had delineated, with truth and accuracy, the different harbours on that coast; the purport of what I said was this, that Mr M'Kenzie, having been employed by government to make a general nautical survey, would have mispent his time, if he had employed it on objects not properly belonging to his survey. He might, therefore, with some reason, have been reproached with having squandered the public money, if he had consulted his own ease and safety, by drawing plans of harbours, instead of risking his life, and wearing out his constitution, in the faithful discharge of his duty; that is, if he had delineated the numberless harbours in the west of Scotland, for the purpose of building cities, instead of making sea-charts for conducting ships, among

those

thoſe iſlands, into ſafe anchorage. The purpoſe of this argument was, *firſt*, to ſhow that Dr Anderſon had moſt unjuſtly accuſed Mr M'Kenzie of having miſ-ſpent the public money, when Mr M'Kenzie had truly ſaved it by every means in his power; and, *ſecondly*, to ſhow that the Doctor had falſely accuſed Mr M'Kenzie's ſurvey, as being inaccurate, when his charts give to the mariner all that is required for the ſafety of the navigation, although not *all* that might have been given, had he been employed to make plans of harbours. Again,

I have ſaid, that this ſurvey might have been faithfully made, and the charts have been valuable and uſeful, although we ſhould allow all thoſe facts ſtated by Dr Anderſon, with regard to the diſtance of inland places, to be in reality as he repreſented them. This argument I employed to ſhow the Doctor's want of judgment in pointing out ſuch things in a ſea-chart, which, ſuppoſing them to be errors, could not affect the utility of the charts. But I alſo ſaid, that there was no reaſon for ſuch a ſuppoſition; for, on the contrary, I was to diſprove thoſe alledged facts.

I have alſo ſaid, that I did not propoſe to purſue Dr Anderſon into the minutiae of his accuſation, when he quarrels the ſhape of iſlands, which, in the charts, are not much larger than a pin-head; becauſe, having to prove ſuch of the Doctor's facts, as were properly examinable, to be falſehoods, thoſe, which could not be thus examined, might fairly be conſidered as not worth

the

the pains of an inveſtigation. It may now be obſerved, that this has been done, as far at leaſt as it was poſſible, without having recourſe to another actual ſurvey, with which that of Mr M'Kenzie's might be compared. And now Dr Anderſon, in his anſwer, ſays, '*the facts he has mentioned are not diſproved.*'

Here is a piece of impudence, which nothing but bad principles could ſuggeſt, and which nothing but the deepeſt ſophiſtry could cover. In oppoſition to Mr M'Kenzie's actual ſurvey, he gives, for facts, downright falſehoods; and then he ſays theſe facts are not diſproved. Why? Becauſe, *if Mr M'Kenzie doubts the truth of them, the places themſelves ſtill exiſt, and may be meaſured, ſo as to aſcertain theſe facts with preciſion.* A thief, who had ſtolen a horſe, may eſcape the gallows, if his purſuer has not proved the theft; becauſe the law preſumes every man to be honeſt who is not proved to be a thief. But Dr Anderſon will not be allowed to ſhelter himſelf under this ſanctuary of the law. The preſumption of honeſty and truth is all in favour of Mr M'Kenzie's ſurvey—the work of thirty of his beſt years—the child of ſcientific knowledge—and the fruit of ſkill, bought at the price of labour and of danger. There is not even required that univerſal approbation, which his labours have received from experienced and profeſſional men, to exempt him from the diſagreeable neceſſity of defending his charts, by proving Dr Anderſon's allegations to be ill-founded. Dr Anderſon has made the moſt violent attack upon the property of a

perſon

perſon who never injured him; he has made the moſt inſidious, as well as cruel attack, upon the fame of a well deſerving citizen. Therefore, he muſt either prove that he had made the *ſurvey* on which he grounds his accuſation, or he muſt be condemned, as bearing falſe witneſs againſt his neighbour.

I call the attention of the public to this cauſe, where truth, and the deareſt rights of mankind, are concerned. That which is Mr M'Kenzie's caſe to-day, may be the caſe of any other man to-morrow. If the world will not ſtigmatize the perſon who moſt unprovokedly has violated truth, and has wilfully tranſgreſſed the moſt ſacred law of ſociety, there would be no principle of morality in man.

Dr Anderſon now denies his having conſulted Dorret's map; his method of wording this denial is ſomewhat remarkable. *References to maps, (none of which Dr Anderſon examined on this occaſion but Mr M'Kenzie's.)* Does he mean to ſave his conſcience with the ſubterfuge of having employed the copies of Mr Dorrot's map now publiſhed by Mr Ainſlie and Mr Knox? or does he expect more credit from theſe copies than from the original? He would deceive the world, but he deceives himſelf. He dare not ſay he had employed no map whatever, in fabricating thoſe pretended errors of the ſurvey; for then he is aware the following queſtions would be put. Was it by inſpiration that you arrived at the knowledge of thoſe errors you have mentioned, and of all thoſe which you have ſaid

you

you had ſtill in reſerve? Or, was it in the ordinary way, by employing inſtruments for meaſuring diſtances and taking bearings? He is conſcious that he did not uſe the proper means; he alſo perhaps knows that he is incapable of doing it, were he ſo inclined; he therefore preſerves a guilty ſilence with regard to his means of knowledge; and, in order to miſlead the judgment of the public, he only ſays, I have not on this occaſion examined any of thoſe maps, to which you have referred, but Mr M'Kenzie's alone.

The diſcrepancy of Mr M'Kenzie's charts is a ſubject below notice, and has already been ſufficiently anſwered; but, ſince Dr Anderſon plumes himſelf in lodging his charts at his printer's, and ſince his printer has decided the cauſe in Dr Anderſon's favour, on this account, an atteſted meaſurement ſhall be ſubjoined.

Dr Anderſon's pretended good intentions to Mr M'Kenzie in giving him an opportunity of *exculpation*, as he terms it, is nothing but a pitiful attempt to draw the attention of the public from his own guilty conduct; and the laboured diſcourſe which he has given upon this ſubject is ſo little to the purpoſe, that it ſhould have no anſwer, were not Mr M'Kenzie's character mentioned in his argument. Dr Anderſon talks ignorantly when he propoſes to correct Mr M'Kenzie's charts. There is no error in them to correct; at leaſt, Dr Anderſon has not pointed out any. But I believe it is not ignorance alone that makes Dr Anderſon ſtill continue to conſider the rock Skerinoe, either as an

error

error or a fault, when it is neither. Mr M'Kenzie publiſhed his charts faithfully, and told their imperfections. Any perſon who buys the Orcades, may make what changes he pleaſes upon the chart, if he thinks to better it; but, Mr M'Kenzie has nothing to alter, having mentioned the imperfections of the charts; and Dr Anderſon is extremely impertinent for ſuppoſing that Mr M'Kenzie's character in this reſpect had ever any occaſion for apology.

Dr Anderſon ſays, *he is aſhamed at having been inadvertently drawn into an altercation with a perſon who ſeems to have no other aim but to miſrepreſent facts.* I have repreſented Dr Anderſon's facts, I believe, in their proper light; and I have now to tell him, that there are other parts of his conduct of which he ſhould be more aſhamed; *firſt*, of having wickedly deviſed evil againſt his neighbour without cauſe; and, *ſecondly*, of having fooliſhly departed from the path of truth in expectation of ſupporting his calumnious aſſertions. What benefit he promiſed to himſelf for thus tranſgreſſing the law of natural benevolence, implanted in the heart of man, and never violated without ſome reaſon, he beſt can anſwer. I believe he now repents, becauſe his purpoſe has been fruſtrated. How he ſettles the account with his conſcience, it becomes not me to inquire; but an injured public will not fail, I hope, to reſent the open violation of that which is right and amiable in the eyes of all other men.

The

The friends of Mr M'Kenzie having now ſaid what was thought neceſſary, in juſtification of themſelves, when attacked by Dr Anderſon in his laſt letter, they will cloſe the whole by (what muſt be admitted to be the beſt evidence poſſible in ſupport of Mr M'Kenzie's ſurvey) certificates from thoſe who are moſt intereſted, and who alone have a title to judge—Commanders and Maſters of veſſels,—and Branch Pilots.

*Certificate from Mr Laurie engineer concerning Lochs Stockeniſh and Tarbat.*

*To Mr Murdoch M'Kenzie.*

SIR, *Edinburgh, April* 16. 1785.

Having been deſired to examine your ſea charts, in reſpect to the diſtance between Loch Tarbat and Loch Stokeniſh, alledged by Dr Anderſon to be laid down three and a half miles in chart thirty-one, and ſix miles in chart twenty nine;

Theſe are to certify, that, ſo far from finding any ſuch diſcrepancy, viz. two miles and a half, as alledged by Dr Anderſon, I find the difference of diſtance, betwixt the neareſt water of the one, and the neareſt water of the other, of theſe two lochs, in theſe two charts, to be ſo inſignificant, as hardly to be meaſurable by the ſcale of ſaid maps. The copy of the charts

 which

which I examined are thoſe belonging to the cuſtom-houſe of this place.

*John Laurie* engineer.

*Letter from Mr William Patterſon, Kirkwall,*

*To Mr Murdoch M'Kenzie.*

SIR, *Kirkwall, Dec.* 11. 1784.

I am extremely ſorry to ſee you lately attacked on ſome part of your Surveys, and I think it very ſurpriſing that, ſuch a number of years have elapſed, theſe neglects you are charged with was not found out ſooner, where there has been a conſtant courſe of ſhipping and experienced ſeamen, till a Dr Anderſon would do it. It is a known fact in this country, that, before your ſurveys of the Weſt of Britain and Ireland was publiſhed, that there were from ten to fifteen pilots employed in Stromneſs, by ſhipping going to Liverpool and Ireland, and more needed if they could been had; and ſince that, no capable ſhipmaſter, going to theſe places, takes a pilot, that has your ſurveys. I have frequently heard ſenſible maſters of ſhips ſay, none who underſtood a map needed a pilot where you ſurveyed, if he had your's. But I really think, Sir, that Dr Anderſon has imagined you in Abraham's boſom, and that he did not expect an anſwer. It is common for thoſe employed as he is to find faults with others that have gone before

fore on the ſame plan, (however right), to raiſe their own merit, which always proceeds from ambition, avarice, and mercenary motives. But I believe that Dr Anderſon will as ſoon make new rocks to grow where you have ſurveyed, as he will prevent experienced ſeamen travelling from fear, where they are ſure of ſafety. I am truly ſorry you have met with this unexpected matter to give you uneaſineſs, but I hope you don't much regard it. I am, with the greateſt reſpect and eſteem,

Dear SIR,

Your obliged humble ſervant,

*Will. Patterſon.*

*Liverpool Certificate.*

*Liverpool, January* 18. 1785.

We commanders and maſters of veſſels in Liverpool, trading to Norway, Hamburgh, the Baltic, &c. being informed that malicious remarks have been ſent abroad, reflecting on Mr M'Kenzie's Charts of the Weſt Coaſt and Iſlands of Scotland, Do hereby certify to all whom it may concern, that we have always found theſe charts ſufficiently exact for navigating ſhips with ſafety among the iſlands, or between them and the main-land, and, by his improved method in them, the great diverſity of high and low lands, cliffs, ſhores, &c. are ſo remarkably diſtinguiſhed, as to make them eaſily known, ſo that we can proceed with more confidence,

and

and have found them ſurer guides than any other charts we have ever ſeen.

| | |
|---|---|
| William Gibbons. | John Meadley. |
| Henry Frewhett. | William Fountains. |
| John Smith. | John Hudſon. |
| John Johnſon. | Robert Batſon. |
| Thomas Phillips. | Thomas Wilſon. |
| John Joy. | Thomas Swainſton. |
| John Briggs. | Lionel Trotter. |
| John Sherrard. | Joſeph Colling. |
| Lancelot Smith. | James Finchett. |
| Hugh Bell. | Stephen Ryder. |
| Thomas Potts. | James Ryder. |
| David Gavin. | |

Rather than take a pilot at the Orkneys, I bought Mr M'Kenzie's Charts, which anſwered my purpoſe very well, and proved a great ſaving in pilotage.

William Ward.

Theſe are to certify whom it doth or may concern, that Robert Stewart, maſter of the Lady's Adventure, nor any of my ſhip's company, was ever at Liverpool before, and, by the aſſiſtance of Mr M'Kenzie's Draughts, and nothing elſe but God's bleſſing, went clear of every danger.

Robert Stewart.

*Leith*

*Leith Certificate.*

*To Mr Murdoch M'Kenzie.*

SIR,

We, commanders and maſters of veſſels in Leith, navigating the Orkneys and weſt coaſts of Britain, do hereby certify that we have always found Mr Murdoch M'Kenzie's charts ſufficiently exact for navigating ſhips amongſt the Iſlands and upon the coaſts; and, by his improved method in them, the great diverſity of high and low lands, cliffs, ſhores, &c. are ſo remarkably diſtinguiſhed as to make them eaſily known; ſo that we can proceed with more confidence, and have found them ſurer guides than any other charts we have ever ſeen.

John Ogilvie Commander of an Exciſe Yacht.
Duncan Aire Cammander of ditto.
Laurence Brown Commander of a Cuſtom-houſe Yacht.
William Robertſon, and Branch Pilot.
Willliam Smith.
James Spittle Branch Pilot.
John Crawford, and was Branch Pilot.
Peter Couper.
William Couper.
James Hunter, maſter of a Veſſel, and Branch Pilot.
William Hunter.

Duncan

Duncan Grant.
John Dingwall.
Colin Henderſon.
James Buchanan, and Branch Pilot.
John Dickſon, and Pilot through the Highlands.
D. Stevenſon, and Branch Pilot.
Alexander Landale, and Branch Pilot.
Alexander Gellyew.
Robert Kay, and Pilot.
John Houſton.

*Letter from Captain Jona. Fowler,*

*To Mr Murdoch M'Kenzie.*

Dear SIR, *Stockton, 29th Dec.* 1784.

Your's of the 24th inſt. came ſafe to hand; and I can't help being exceedingly ſurpris'd that any one ſhou'd report your charts to be erroneous, as I have never heard any ſeaman that had us'd them, find any fault with them; and, for my own part, I can with great truth aſſert, the charts of Orkney and Lewis Iſlands, (ſo far as I had occaſion to try them) are correct, to the greateſt nicety.——Mr Graham was miſtaken in ſaying the Hudſon's Bay Company's ſhips paſs'd thro' the Weſtern Iſlands of Scotland. But I went into Stornoway harbour without a pilot, in the year 1761, entirely by the help of your chart of the place; and, when the

the people of the place came on board, and found I had no pilot, they wonder'd, and ſaid they were ſure I muſt have your charts on board. I have inclos'd a certificate; and I beg you will make uſe of my name, as believing your works to be without fault. And am,

Dear Sir,

Your obliged humble Servant,

JONA. FOWLER.

*Certificate from Captain Jona. Fowler.*

Theſe are to certify thoſe it may concern, that, for more than 25 years, I have us'd Mr M'Kenzie's charts, in paſſing and repaſſing thro' the Iſlands of Orkney, and always found them particularly correct. And I once had occaſion to go into the harbour of Stornaway, in the Iſland of Lewis, and carried the ſhip in, without a pilot, but entirely by the help of the above gentleman's chart of that harbour. As witneſs my hand, at Stockton, this 29th of December 1784.

JONA. FOWLER.

*Letter from Mr John M'Clear, Leith,*
*To Mr Murdoch M'Kenzie.*

SIR,

I HEAR that one Dr Anderſon has been finding fault with your draughts of the Weſt of Scotland, and has wrote againſt them in the news-papers. This ſurpriſed me very much; for you muſt know that I was born in one of theſe iſlands, and accuſtomed to ſhipping from my youth, and ſince that have been maſter of a veſſel and pilot for forty years; have had the charge of King's cutters and many merchant-ſhips through the Highlands, and as far as Liverpool, when your draughts were aboard, and never had reaſon to find fault with them, nor ever heard any captain or ſhipmaſter ſay they found them wrong; on the contrary, every one of them, as well as myſelf, approved of them much, as the beſt they ever ſaw. I own, indeed, they have done prejudice to the pilots; for, to my knowledge, many of them that uſed to be well employed and well paid, before your charts came out, are now obliged to ſtay at home idle, or enter before the maſt, becauſe maſters through the Highlands, to the weſt of England and to Ireland, ſail by your draughts without taking a pilot. I believe Mr Anderſon is not well acquainted with ſailing, or ſea charts, or he would not have fallen foul of ſuch a performance. Stornaway pilots hath

ſuffered

ſuffered much by your draughts, as hath the Orkney pilots; for, formerly, few ſhips attempted to go weſtward from Stromneſs without pilots, and now very few of us are employed, the ſhipmaſters telling that they can do very well with M'Kenzie's draughts. I am a well-wiſher to all honeſt men, and, SIR,

Your moſt humble ſervant,

JOHN M'CLEAR.

*Leith, 8th February* 1785.

*Certificate from Captain Alexander Cook,*

*To Mr Murdoch M'Kenzie.*

I ALEXANDER COOK, commanding a veſſel in the ſervice of the Revenue of Cuſtoms, do certify, That, in the courſe of my cruizes through the Orkneys and Weſtern Iſlands, I have always made uſe of Mr Murdoch M'Kenzie's charts, and have found them ſufficiently exact for navigating ſhips amongſt the iſlands and upon the coaſts; and, by his improved method in them, the great diverſity of lands, cliffs, and ſhores, are ſo remarkably diſtinguiſhed as to make them eaſily known; ſo that I can proceed with the greateſt confidence, and have found them ſurer guides than any other charts I have ſeen.

ALEX. COOK.

*12th April* 1785.

*Letter from Captain Thomas Alexander, Leith.*

*To Mr Murdoch M'Kenzie.*

GOOD SIR, *Leith, Feb.* 11. 1785.

Reading in the Newſpapers a violent attack made on you and your charts of the Weſt Highlands, I can ſay it is a falſe and cruel attack. I have been pilot of his Majeſty's ſhips, and other reſpectable merchant ſhips belonging to Liverpool, and elſewhere; and, by depending on your charts, through the Orkney iſlands, and oftner though the Weſt Highlands, to and again, have been ſucceſsful, and truſt in Almighty God to continue to be ſucceſsful, as I get an honeſt and very good livelihood by piloting veſſels. I am,

Good SIR,

Your unknown humble ſervant,

*Thomas Alexander.*

*Letter*

*Letter and Certificate from Captain Campbell, Commander of the Prince of Wales cutter of Greenock, in the ſervice of the Board of Cuſtoms, on board of which veſſel Dr Anderſon made his voyage to the Hebrides.*

SIR,

I HAVE received your letter of the 9th, which ſhould have been anſwered much ſooner, had it not been for much hurry in forwarding the cutter repairs.

Incloſed I beg leave to ſend you my real opinion of Mr M'Kenzie's charts. They are certainly the very beſt that ever was done, though there may be different ſmall errors in them, that does not ſignify much in moſt part of the coaſt that I had occaſion to uſe them.

am, reſpectfully, SIR,

Your moſt obedient and

very humble ſervant,

JOHN CAMPBELL.

*Greenock*, 18*th April* 1785.

*Certificate.*

I JOHN CAMPBELL, commander of the Prince of Wales cutter in the ſervice of the Revenue, do hereby certify, That Mr Murdoch M'Kenzie's charts are tru-

ly

ly the very beſt I ever have ſeen of the kind, and that, ſo far as I have had occaſion to uſe them upon the weſt coaſt, and through the iſlands of North Britain, I found them always of great ſervice, notwithſtanding there may be ſome ſmall overlooked errors in them.

JOHN CAMPBELL.

*Letter from Captain James Hamilton, commander of the Prince William Henry cutter, in the ſervice of the Board of Cuſtoms.*

DEAR SIR,

I RECEIVED your favour of 9th current. So much have I been out of the earthly world, that I never heard of the diſputes about Mr M'Kenzie's charts before I received your letter. I have only to obſerve, that, as far as I can judge, that they are the beſt charts I ever ſaw of theſe coaſts, but not without errors, though theſe are but few, conſidering the extent, and difficulties that muſt have attended ſuch a ſurvey.

I am, Dear Sir,

Your moſt obedient ſervant,

JAMES HAMILTON.

*Prince William Henry cutter,*
*Wigton-bay, April* 30. 1785.

*Letter*

*Letter from Captain James Crawford, commander of the Combraes cutter, in the ſervice of the Board of Cuſtoms.*

DEAR SIR, *Port Glaſgow, April* 30. 1785.

YOUR letter of the 9th inſtant to Stranrawer is but this moment ſent up to me by my mate.

I am a great advocate for Mr M'Kenzie's charts, becauſe they are the beſt I ever ſaw; but then I could not certify them free of errors, as I have heard of ſeveral, and believe them to be true. Every ſurveyor is liable to error, and his is the beſt that I know of. I have deſired our ſhoremaſter to requeſt the favour of thoſe maſters of veſſels that can, to certify their opinion of them, for I'm not able at preſent to go out myſelf. If you had deſired the Collector to do this as they come and clear out, it would have done better. I never ſaw Dr Anderſon's attack on theſe charts, but I have heard of it.

Your's faithfully,

JAs. CRAWFORD.

*Second Letter from Captain James Crawford, Port Glasgow.*

SIR,

I WROTE you that, as I was indispoſed myſelf, and not going about, I had put the certificate into the hands of our ſhore-maſter, to be preſented to and ſigned by the ſhipmaſters who had peruſed Mr Mac-Kenzie's charts; I now beg leave to ſend it ſigned by all the Captains who are at preſent at home here, and have experienced the draughts, and if it ſhall be of any conſequence to have it ſigned by thoſe at Greenock, you will pleaſe to return it, and I ſhall have it preſented to them for that purpoſe, as I will be extremely happy to render you or him any ſervice in my power, and indeed his charts demands every teſtimony of their utility and correctneſs from thoſe that have peruſed them.

Faithfully and truly yours,

*Port Glaſgow, May* 10. 1785.

JAMES CRAWFORD.

*Certificate.*

*Port Glasgow, May* 2. 1785.

We Commanders and Masters of vessels belonging to the Clyde, navigating the Orkneys and West Coasts of Britain, do hereby certify, that in the experience we have had with Mr M'Kenzie's charts, we have always found them most accurate and just in navigating ships amongst the islands and upon the coast; and by his improved method in them, the great diversity of high and low lands, cliffs, shores, &c. are so remarkably distinguished, as to make them easily known, so that we can proceed with more confidence, and have found them surer guides than any other charts we have ever seen.

*Jas. Crawford*, Cutter.
*James Gordon*, Shipmaster.
*James King, jun.* ditto.
*John Paterson*, ditto.
*William M'Gill*, ditto.
*John Lusk*, ditto.

*Second Letter from Captain James Crawford, Port Glasgow.*

SIR,

I WROTE you that, as I was indispoſed myſelf, and not going about, I had put the certificate into the hands of our ſhore-maſter, to be preſented to and ſigned by the ſhipmaſters who had peruſed Mr MacKenzie's charts; I now beg leave to ſend it ſigned by all the Captains who are at preſent at home here, and have experienced the draughts, and if it ſhall be of any conſequence to have it ſigned by thoſe at Greenock, you will pleaſe to return it, and I ſhall have it preſented to them for that purpoſe, as I will be extremely happy to render you or him any ſervice in my power, and indeed his charts demands every teſtimony of their utility and correctneſs from thoſe that have peruſed them.

Faithfully and truly yours,

*Port Glasgow, May* 10. 1785.

JAMES CRAWFORD.

*Certificate.*

*Port Glasgow, May* 2. 1785.

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*Jas. Crawford*, Cutter.
*James Gordon*, Shipmaster.
*James King, jun.* ditto.
*John Paterson*, ditto.
*William M'Gill*, ditto.
*John Lusk*, ditto.